

CASE STUDY

Product Development & Implementation

MOVING YOUR WORLD



VITROLIS SHEARLUBE X

The Customer

As a world leading manufacturer of food and beverage containers, the customer has over 25,000 global employees with 37 production facilities in Europe alone. They produce billions of glass containers each year and have a strategic focus on sustainability and infinitely recyclable glass packaging.

The Problem

The customer has had long-term issues with small shear marks on the base of some containers produced at their facility in the Czech Republic. This meant that their product rejection rate was higher than desired, resulting in costly scrappages.

They were also having issues with the corrosion rate of their shear blades with the blades having to be replaced every month. The maintenance cost and downtime was adding both cost and time pressures to production.

Finally, excessive residue build-up was noticed around the blade surface which was highlighted as a possible cause to the quick corrosion.

The above issues had been ignored for years however action was taken following a complaint from a new customer (A recently won new-tender supplying returnable drinks containers to the German market in flint glass).

With their reputation as a quality manufacturer on the line, FUCHS were called in to assess the situation and offer its product and technical process knowledge.

Problem

- Shear marks were present and visible on finished glass products
- High corrosion rate of shear blades leading to short tool life
- Residue build up on shear blades
- High maintenance costs
- Machine downtime

Solution

- Testing of dilution water condition
- Developing and implementing a new product - VITROLIS SHEARLUBE X:
 - High wetting capacity
 - Excellent gob cut
 - High economic efficiency

Results

- Reduction of rejected products due to shear marks
- Reduction in residue build-up
- Increased blade life
- Reduced maintenance costs
- Reduced downtime

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The Solution

FUCHS began communications with the customer and following an on-site assessment agreed to run a various laboratory tests.

Firstly, the water used to dilute the product within the shear spray system was tested to ensure its suitability as this can often be overlooked when looking at product performance.

We discovered that the customer was using reverse osmosis treated water, which is generally considered the best quality water for this process which suggested that the issues was more lubricant choice.

Our in-house R&D chemists worked with the site to develop a new trial grade called VITROLIS SHEARLUBE X due to its high wetting capacity and beneficial anti-corrosion properties. These would help remove the shear marks whilst prolonging tool life.

Results & Conclusion

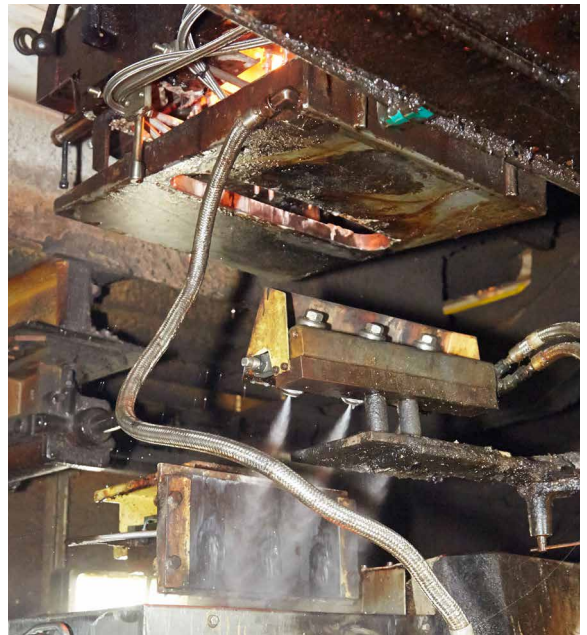
FUCHS provided the customer with a full barrel sample of the new VITROLIS SHEARLUBE X for an extensive full machine trial.

The customer trialled this and 3 other grades (including a competitor grade), on one machine for 6 weeks before evaluating performance. FUCHS was then informed that the VITROLIS SHEARLUBE X was the best performer.

The customer noticed a reduction of shear marks compared to their original production and also enjoyed a increase in shear blade life thanks to the product's anti-corrosion protection through increased wettability on the blade surface and reduction of product build-up. Reduced maintenance stoppages and part replacement costs gave the customer tangible savings.

The customer informed FUCHS that they would like to use this product across all of their lines in their Czech Republic facility.

This former development grade has also been established within the standard FUCHS glass lubricant product portfolio.



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